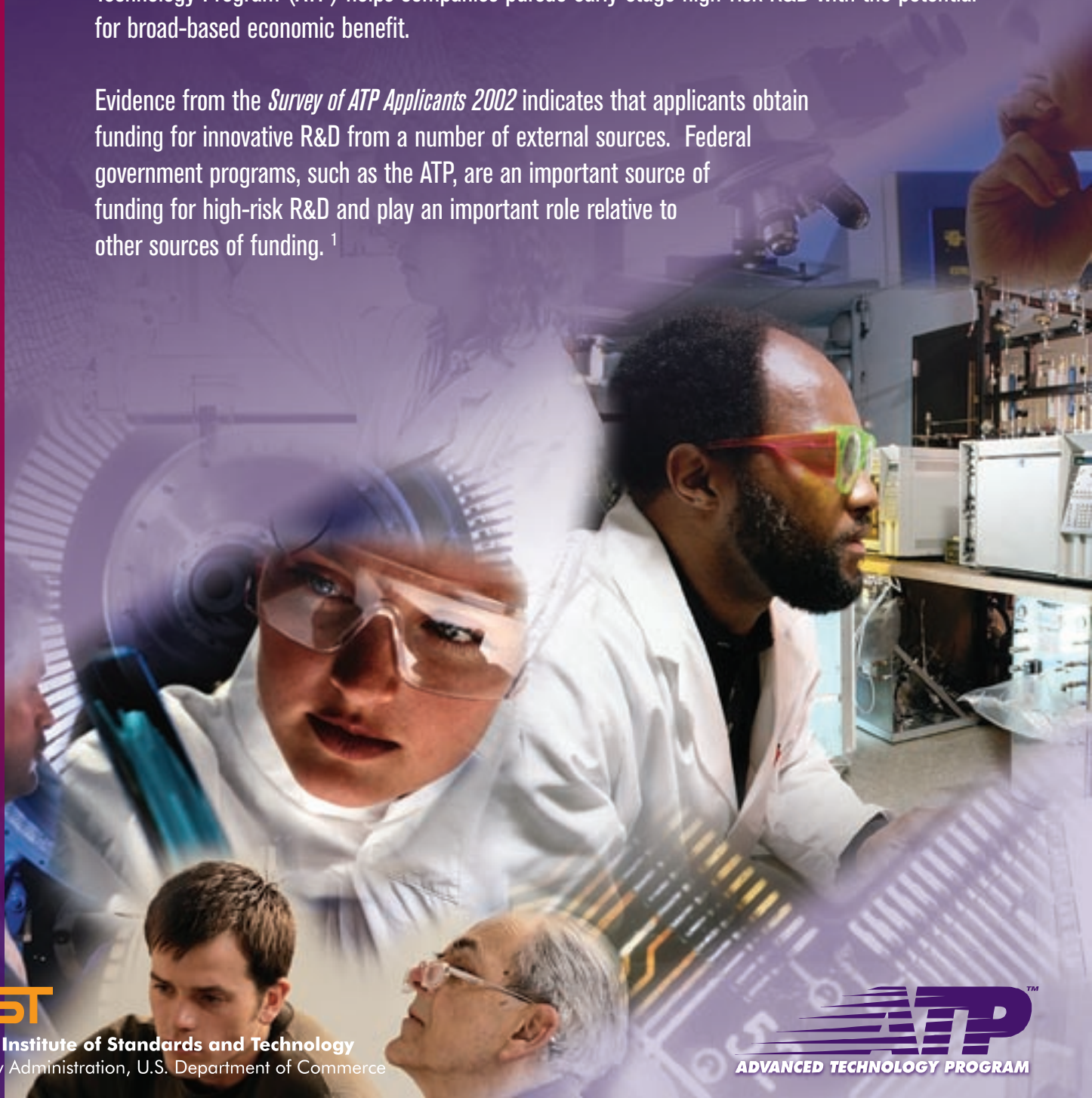


# Funding Sources for Innovative R&D

Companies typically focus their own research and development (R&D) dollars on product development efforts where outcomes are more certain and need to depend on external sources of support in order to pursue high-risk research. Through its cost-shared funding, the Advanced Technology Program (ATP) helps companies pursue early-stage high-risk R&D with the potential for broad-based economic benefit.

Evidence from the *Survey of ATP Applicants 2002* indicates that applicants obtain funding for innovative R&D from a number of external sources. Federal government programs, such as the ATP, are an important source of funding for high-risk R&D and play an important role relative to other sources of funding.<sup>1</sup>



Funding Sources for Innovative R&D

Survey respondents were asked to indicate whether their company had received funding (for research in the area represented by the proposed ATP project) from the following external sources:

- a) Federal government programs (other than ATP)
- b) State or local government programs
- c) Other companies
- d) Venture capital or other private investment

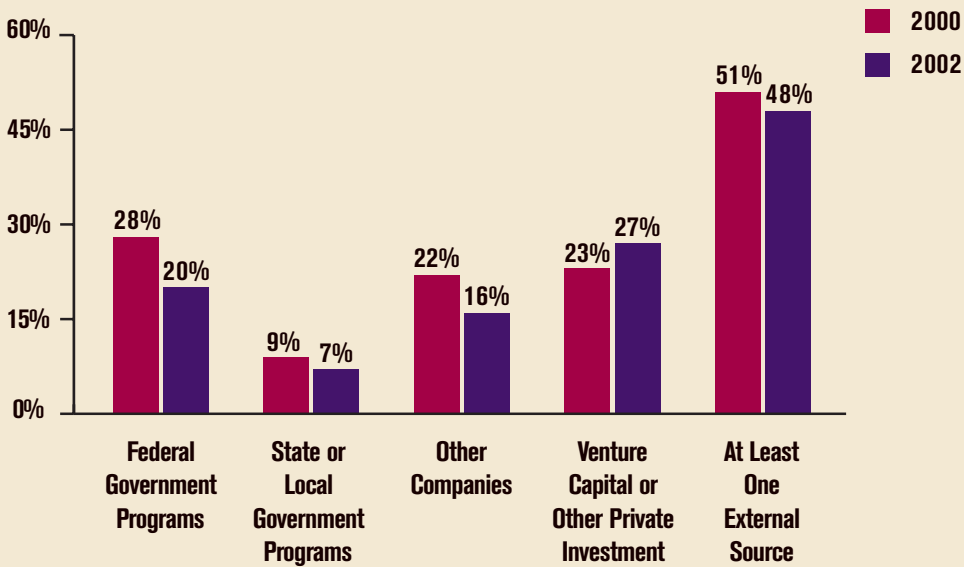
Respondents were asked to report their funding sources for the 3 years leading up to their proposal submission and also to indicate how critical each reported source was for their company’s research effort.

Almost half of all ATP applicants report receiving prior funding from external sources for the research area of their proposed project

- Almost half of all applicants report receiving funding for their research area from at least one external source in the 3 years prior to the ATP proposal. This is very similar to what was found for the year 2000 applicants.
- 20% received funding from federal government programs, and 7% received funding from state or local government programs; 16% received funds from other companies, and 27% from venture capital or other private investment. The figures reported for funding from the federal government and other companies are both lower (to a statistically significant degree) than was found for the year 2000 applicants. (See Figure 1.)

FIGURE 1.

Funding Sources Reported by ATP Applicants: Three Years Prior to Proposal



Many ATP applicants report that prior funding from an external source was “very critical” to their research in the area of their proposed project

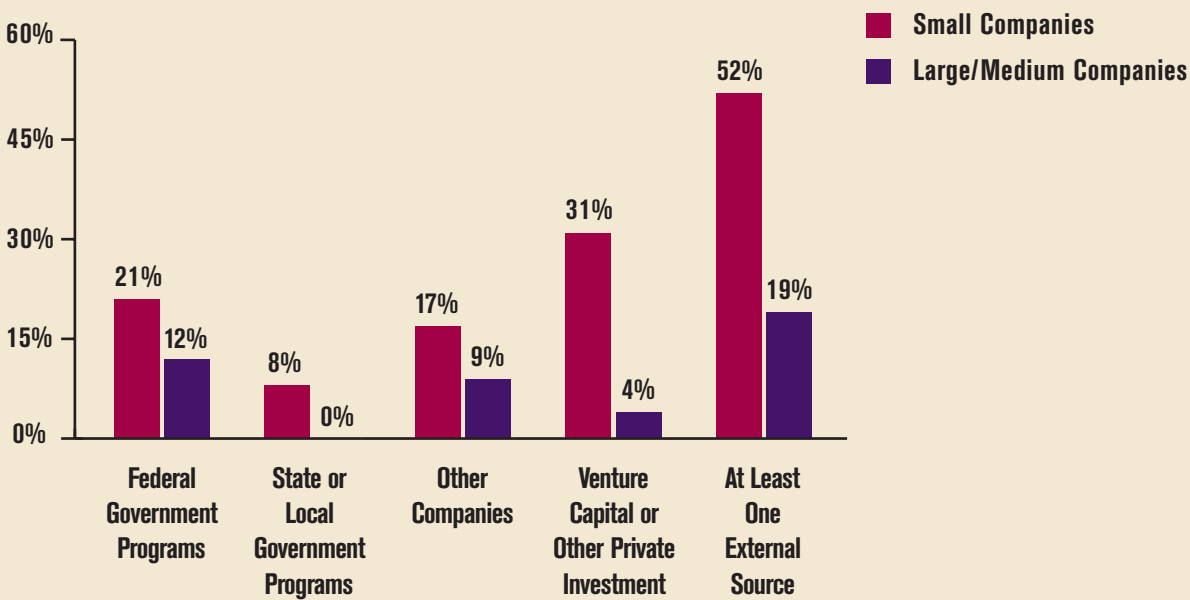
- 38% of applicants report that funding from an external source in the 3 years prior to the ATP proposal was “very critical” to their research effort.
- 14% of applicants received funding from federal government programs that was “very critical” to their research efforts; only 4% received such funding from state or local government programs.
- 8% of applicants received funding they characterized as “very critical” from other companies, and 22% received such funding from venture capital or other private investment.

Small companies are more likely than larger companies to have received prior funding from external sources for the research area of their proposed project

- In the 3 years leading up to the ATP proposal, 52% of small company applicants received funding from an external source for the research area, compared to 19% for larger companies. (See Figure 2.)
- Small companies are almost twice as likely as larger companies to have received prior funding from federal government programs and other companies.
- Venture capital or other private investment represents a significant source of external funding for small companies but not for larger companies. Small companies also receive funding from state and local government sources to a greater extent than do larger companies.

FIGURE 2.

Sources of Funding Prior to ATP Proposal: Small Companies versus Large/Medium Companies

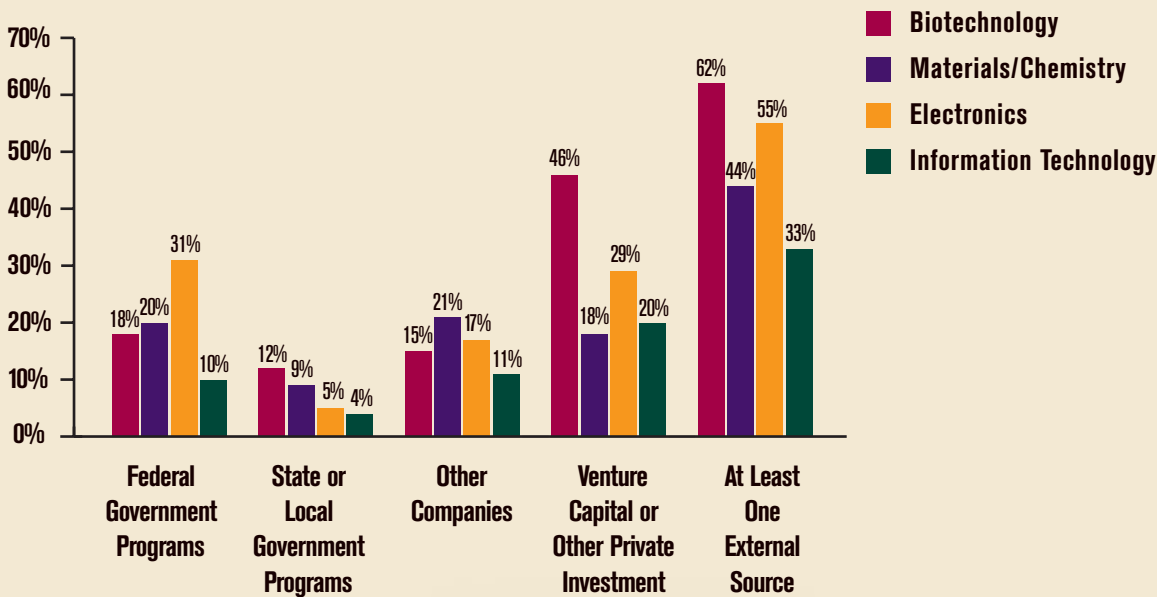


<sup>1</sup>See Branscomb, L., and Auerswald, P. (2002). *Between Invention and Innovation: An Analysis of Funding for Early Stage Technology Development*, U.S. Department of Commerce, National Institute of Standards and Technology, NIST GCR 02-841.

## Applicant companies varied across technology areas in the extent to which they received prior external funding for the research area of their ATP proposal

- In the 3 years leading up to the ATP proposal, companies in the Biotechnology and Electronics areas are more likely to have received funding for the research area from external sources, relative to companies in the remaining two ATP technology areas. (See Figure 3.) Information technology companies were least likely to have received external funding.
- Biotechnology companies are more likely to have received funding from venture capital or other private investment. Companies in the Electronics area are more likely to have received funding from federal government sources.

**FIGURE 3.**  
*Sources of Funding Prior to ATP Proposal, by ATP Technology Area*



Companies seeking to partner with the Advanced Technology Program (ATP) submit proposals to the ATP. Proposals must be for the development of innovative technologies that could not obtain private funding due to the high technical risk and that have the potential to produce widespread benefits to the economy and society. Proposals are evaluated for technical and economic merit in a rigorous competitive review process.